

## REMARKS

Claims 1-9 are pending in this application, with Claims 1, 5, and 9 being the independent claims. Claims 1-9 are rejected under 35 U.S.C. 102(e) as being anticipated by Furuskar et al. (US 6,704,898).

Claims 1, 5 and 9 of the present application recite a method for transmitting error-detected data in a mobile communication system. The method generates S sub-codes in a transmitter having a sub-code generator for generating the sub-codes from a physical layer packet (PLP) information stream using quasi-complimentary turbo codes in a Code Division Multiple Access (CDMA) mobile communication system.

In order to assist the Examiner in distinguishing between the coding taught in Furuskar and the quasi-complimentary turbo coding (QCTC) recited in Claims 1, 5 and 9 of the present application, the following paragraph describing QCTC is provided:

A quasi-complementary turbo code (QCTC) is a code produced in an apparatus that includes a turbo encoder for generating information symbols and first and second parity symbols from an information bit stream, and a sub-code generator for generating sub-codes from the information symbols and the first and second parity symbols using puncturing matrices. The sub-code generator selects a number of information symbols equal to a number of columns in the initial puncturing matrix from the information symbols output from the turbo encoder, if a difference between the number  $N_s$  of selected symbols in the initial puncturing matrix and the number of the columns in the initial puncturing matrix is equal to or greater than a number of component encoders in the turbo encoder, and selects a number of first and second parity symbols equal to the difference. The QCTC is referred to as being "quasi-complementary" because the codes are not strictly complementary since repeated symbols do exist, but each sub-code exhibits a unique characteristic that enables the sub-codes to be distinguished from each other even though they are not complementary (See Section 3 and 4 of the present application and U.S. Patent No. 6,877,130 to Kim et al.).

Furuskar teaches a transmitter using a scheme that allows a receiver of either Type I Hybrid ARQ or Type II Hybrid ARQ to successfully receive and decode blocks from a common transmitter without the need for the transmitter to be informed as to which scheme is being employed by the receivers. Furuskar employs convolutional coding schemes for the coding of

blocks of an information stream for transmission. If the receiver cannot decode the blocks and fails to send an acknowledgement (ACK) or sends a non-acknowledgement (NACK), then the same block is retransmitted with a second code. A subsequent NACK in response to the retransmission, will cause another retransmission with a third code. The coding in embodiments taught by Furuskar is convolutional coding, although the use of turbo-coding of blocks is also recognized. However, quasi-complimentary turbo coding (QCTC), as recited in Claims 1, 5 and 9 of the present application is not taught or suggested by Furuskar.

Because Furuskar does not teach QCTC, it does not anticipate Claims 1, 5 and 9 of the present application. Without conceding the patentability, per se, of the dependent claims, Claims 2-4 and 6-8 are also not anticipated for at least the above-stated reason.

Should the Examiner believe that a telephone conference or personal interview would facilitate resolution of any remaining matters, the Examiner may contact Applicant's attorney at the number given below.

Respectfully submitted,



Paul J. Farrell  
Reg. No. 33,494  
Attorney for Applicant

DILWORTH & BARRESE  
333 Earle Ovington Blvd.  
Uniondale, New York 11553  
Tel: (516) 228-8484  
Fax: (516) 228-8516